

Amendments

In accordance with 37 CFR §1.121, please amend the above-identified application as set forth below.

Amendments to the Claims:

Please amend the claims as set forth below.

1-17 (Cancelled)

18. (New) A controlled crop cleaning mechanism for a harvester such as a combine, said mechanism comprising:

a sieve, said sieve having a plurality of openings, each of said openings being adjustable between a narrower position and a wider position;

a fan, said fan being disposed to blow air through said openings of said sieve sufficient to separate crop from chaff, said fan being adjustable between a faster and a slower speed;

a sensor, said sensor sensing a load on said crop cleaning mechanism, said sensing being independent of said air blown by said fan;

a controller, said controller being in operative communication with said sensor to receive a signal corresponding to a load sensed and said controller being in operative communication with an adjustor of said openings, said controller being configured to widen said openings when said sensed load increases and to narrow said openings when said sensed load decreases, said processor being further configured such that said widening and said narrowing is directly responsive to said sensed load and exclusive of any effect of said air blown by said fan.

19. (New) The mechanism of claim 18 wherein said widening and said narrowing is exclusively responsive to said sensed load.

20. (New) The mechanism of claim 18 wherein said controller is preconfigured to change said position of said openings according to a first function of

said sensed load when said fan is at a first speed and to change said position of said openings according to a second function when said fan is at a second speed.

21. (New) The mechanism of claim 20 wherein said functions are stored in a memory.

22. (New) The mechanism of claim 21 wherein said preconfigured functions may be reconfigured by an operator of said harvester.

23. (New) The mechanism of claim 18 wherein said controller also varies the speed of said fan in a preconfigured relationship to said sensed load.

24. (New) The mechanism of claim 18 wherein said widening or said narrowing of said openings is delayed in time from a receipt of a signal indicating a change in said sensed load.

25. (New) The mechanism of claim 18 wherein said sensor is selected from a group sensing parameters consisting of: straw in a feeder house, a moisture content of a cut crop, an amount of crop cut and a ground speed.

26. (New) The mechanism of claim 18 wherein said controller is directly responsive to said sensed load, said sensed load being a combination of signals from a plurality of sensors.

27. (New) The mechanism of claim 18 further comprising a second sieve, said second sieve having a plurality of openings and wherein said controller is configured to adjust said openings in said second sieve between a narrower position and a wider position.

28. (New) A controlled crop cleaning mechanism for a harvester such as a combine, said mechanism comprising:

a sieve, said sieve having a plurality of openings, each of said openings being adjustable between a narrower position and a wider position;

a fan, said fan being disposed to blow air through said openings of said sieve sufficient to separate crop from chaff, said fan being adjustable between a faster and a slower speed;

a sensor, said sensor sensing a load on said crop cleaning mechanism, said sensing being independent of said air blown by said fan;

a controller, said controller being in operative communication with said sensor to receive a signal corresponding to a load sensed and said controller being in operative communication with an adjuster of said openings, said controller being configured to widen said openings when said sensed load increases and to narrow said openings when said sensed load decreases, said processor being further configured such that said widening and said narrowing is directly responsive to said sensed load and exclusive of any effect of said air blown by said fan;

a memory, said memory storing a first function correlating a position of said openings to a sensed load when said fan is at a first speed and said memory storing a second function correlating a second position of said openings in response to said sensed load when said fan is at a second speed;

said controller having an operational condition, said operational condition executing said widening or said narrowing of said openings according to said preconfigured function in said memory and said controller having a configuration state wherein an operator using an operator interface may reconfigure at least one of said functions in said memory;

said controller being further configurable to delay execution of said widening or said narrowing of said openings for a period of time after a change in said sensed load.